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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,911	10/30/2001	Kenneth R. Williams	10018225-1	5815

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EXAMINER	
TRAN, LY T	
ART UNIT	**PAPER NUMBER**
2853	
MAIL DATE	**DELIVERY MODE**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/015,911	WILLIAMS ET AL.	
	Examiner	Art Unit	
	Ly T. TRAN	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10,12,13,15,16,22,23,26,28-34,36-38,40,41,44,45 and 51-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10,12,13,15,16,22,23,26,28-34,36-38,40,41,44,45 and 51-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 26, 28 and 29, 62-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Wen (USPN 6076917).

With respect to claims 1 and 26, 28 and 29, Wen discloses:

- A first set of print bar assemblies (fig.1& 2: element 31) configures to transfer a first percentage of an imaging medium onto a first side of print media (80), when stationary
- A second set of print bar assemblies (fig.1, 2: element 150) configured to transfer a second percentage of the imaging medium onto the first side of the media (80)
- The print media (element 80) being advanced such as the second percentage of the imaging medium is transferred onto the first side of print

media after the first percentage of the image medium is transferred onto the first side of print media wherein the percentages of the imaging medium transferred onto the print media with one or more print bar assemblies of the print units correspond to the number of print units (fig.1,2)

With respect to claim 2, Wen discloses the first set of print bar assemblies transfers a first half of the imaging medium to form a first portion of a printed image on the print media and wherein the second set of the print bar assemblies transfers a second half of the image medium to form a second portion of the printed image (fig. 1, 2)

With respect to claim 3, Wen discloses wherein the first set of print bar assemblies (31) transfers a first half of the imaging medium to form a first portion of a printed image on the print media (80), and wherein the second set of print bar assemblies (150) transfers a second half of the imaging medium to form a second portion of the printed image (fig.1, 2).

With respect to claim 3, Wen at least one other set of printbar assemblies configured to transfer a percentage of the imaging medium onto the print media (fig.2).

With respect to claim 4, Wen discloses at least one other set of printbar assemblies, an individual set of printbar assemblies configured to transfer a percentage of the imaging medium corresponding to the number of printbar assembly sets (fig.2).

With respect to claim 62, Wen disloses the first set of printbar assemblies includes printheads (31) extending along three axes substantially perpendicular to a direction (A) in which the print media (80) is advanced.

With respect to claim 63, Wen the first set of printbar assemblies comprises a plurality of print modules; and a framework supporting and aligning the plurality of print modules such that the plurality of print modules are connected as a single assembly (Fig.2).

With respect to claim 64, Wen discloses each of the plurality of print modules includes a plurality of printheads (fig.2).

With respect to claim 65, Wen discloses wherein each print module includes a body connecting the plurality of printheads as a single module (Fig.1, 2).

With respect to claim 66, Wen discloses the plurality of printheads (31, 150) overlap in the direction in which the print media (80) is advanced.

With respect to claim 67, Wen discloses the imaging medium transferred by the first set of printbar (31) assemblies is a chromatic color, wherein the imaging medium transferred by the second set of printbar assemblies is the same chromatic color (Column 3: line 1-19) and wherein the first printbar assembly and the second printbar assembly transfer substantially the same percentages of the imaging medium onto the media.

With respect to claim 68, Wen discloses wherein a total amount of the imaging medium is transferred onto the first side of the print media using a total number N of print units and wherein each of print unit transfers a percentage of the image medium

substantially equal to 100%N (fig.1, 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5-8, 10, 12, 13, 15, 16, 22, 23, 30-34, 36-38, 40, 41, 44, 45, 47, 52-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wen (USPN 6076917) in view of Rezanka (USPN 5,570,118).

With respect to claims 5-8, 10, 12,13,15,16, 22, 23, 30-34, 36-38, 40, 41, 44, 45, 47, 50, 52-61, Wen discloses:

- first set of print bar assemblies (fig.1,2: element 31) configures to transfer a first percentage of an imaging medium onto a first side of print media (80)
- A second set of print bar assemblies (fig.2: 150) configured to transfer a second percentage of the imaging medium onto the first side of the media (80)
- The print media (element 80) being advanced such as the second percentage of the imaging medium is transferred onto the first side of print media after the first percentage of the image medium is transferred onto the first side of print media wherein the percentages of the imaging

medium transferred onto the print media with one or more print bar assemblies of the print units correspond to the number of print units (fig.2)

- the first set of printbar assemblies (31) are configured to collectively span a width of the imaging medium (fig.2).
- ink include cyan, magenta and yellow color in the first and second head of print bar assembly in order to produce black, cyan, yellow and magenta color image (Column 3: line 5-20)
- Wherein the first set of printbar assemblies includes a first printbar and a second printbar, the second printbar located downstream from the first printbar in a media feed direction (fig.2)
- at least one of the first set of printbar assemblies and the second set of printbar assemblies is configured to transfer fixer to the medium. (fig.2)

However, Wen fails to teach a heater system configured to remove moisture from the imaging medium after being transferred onto the print media.

Rezanka discloses:

- a first heater (fig.1: element 212) configured to dry the first percentage of the imaging medium and a second heater (fig.1: element 214) configured to dry the second percentage of the imaging medium and the first percentage of the imaging medium dried with the first heater before the second percentage of the imaging medium is transferred onto the print media and the first and second heater poisoned under the print media (Fig.1),

- the first heater (element 212) configured to remove moisture from the first percentage of the image medium before the one or more print bar assemblies of the second print unit transfer the imaging medium onto the print media (fig.1), a second heater (element 214) configured to remove moisture from the second percentage of the image medium,
- the first heater system and the second heater system each includes a component positioned to envelop a portion of the print media and remove moisture from the media (fig.1: element 212, 214)
- Removing moisture from the print media with multiple heater system (Fig.1: element 212, 214) and an individual heater system corresponding to an individual print unit to remove the moisture deposited along with the ink by individual print unit
- removing includes removing the moisture with the individual heater system (Fig.1: element 212, 214) positioned under a print media routing path positioned to envelop a portion of a print media routing path.
- drying the imaging medium with multiple heaters (fig.1: element 212, 214), an individual heater corresponding to an individual print unit to dry percentage of the image medium transferred onto the print media by one or one print bar assemblies (K, C, M, Y) of individual print unit.
- drying the imaging medium with multiple heaters (Fig.1: element 212, 214), an individual heater corresponding to an individual printing unit one print bar assemblies of at least one other print unit (Element C, M Y)

- a heater configured to remove moisture from the imaging medium as the medium passes between the print units, wherein at least one of the print units is configured to transfer fixer to the medium (Fig.1: element 212, 214).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the heater as taught by Razanka. The motivation of doing so is to dry the ink and prevent color bleeding.

4. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wen (USPN 6076917) in view of Oota (JP 02212146A).

Wen fail to teach print heads are partially overlapped one another.

Oota teaches print heads are partially overlapped one another (Abstract).

It would have been obvious tone having ordinary skill in the art at the time the invention was made to have overlap print head as taught by Oota. The motivation of doing so is to make inconspicuous a joint between lines in a recorded image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T. TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-Th:6:30 AM-3:00PM or IFP, Friday: work from home.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LT

July 25, 2007

STEPHEN MEIER
SUPERVISORY PATENT EXAMINER